

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CASWELL FILE WASHINGTON, DC 20460

MAR 1 9 1990

OFFICE OF PESTICIDES AND TOXIC SUBSTANCES

#### **MEMORANDUM**

CHLOROTHALONIL (BRAVO 720) - Section 18 from Oregon Depart-SUBJECT: ment of Agriculture - Control of Eastern Filbert Blight in Hazelnuts

> Caswell No.: 215B HED Project No.: 0-0627 Record No.: 258860 Identifying No.: 90-OR-05

Alan C. Levy, Ph. D., Toxicologist alan C. Levy Max. 12,1990 Review Section I, Toxicology Branch II (HFAS) FROM:

Health Effects Division (H7509C)

TO: Susan Stanton PM 41

Registration Division (H7505C)

on Head
II (HFAS)

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hief Yiannakis M. Ioannou, Ph. D., Section Head THRU: Review Section I, Toxicology Branch II (HFAS)

Health Effects Division (H7509C)

and

Marcia van Gemert, Ph. D., Branch Chief Toxicology Branch II (HFAS)

Health Effects Division (H7509C)

Action Requested: Regarding the request for a Section 18 use of CHLOROTHALONIL (BRAVO 720) for control of Eastern Filbert Blight in Hazelnuts in Oregon, comment on whether the toxicology data base supports the proposed use.

#### **BACKGROUND:**

- Toxicology Data Base The following are "data gaps" regarding required toxicology studies:
  - Teratology rabbit Α.
  - Reproduction rat в.

- 2. The following studies have been received from the Registrant and are awaiting review:
  - A. Feratology rabbit
  - B. Oncogenicity rat
  - C. Dose Rangefinding Reproduction rat

Review of the "Abstracts" only, as submitted by the Registrant indicated the following:

- A. Teratology rabbit: doses of 0, 5, 10 and 20 mg/kg/day; maternal body weight loss and decreased food consumption during dosing only at 20 mg/kg/day; no fetotoxicity or teratogenicity reported
- B. Oncogenicity rat: dietary doses of 1.8, 3.8, 15 and 175 mg/kg/day, kidney and forestomach effects at 3.8 mg/kg/day and greater; renal tubular tumors at 15 mg/kg/day; preneoplastic effects and tumors in the forestomach at 3.8 mg/kg/day.
- 3. Published Tolerances Tolerances for residues of CHLOROTHALONIL have been published in 40 CFR 180.275 for 35 agricultural commodities.
- 4. Carcinogenic Group B2, from the Health Effects Division (formerly, Toxicology Branch) Peer Review Committee. The  $Q_1^*$  was 1.1 x  $10^{-2}$  mg/kg/day (2 year feeding study in rats, memorandum B. Fisher 7/20/87).

#### RECOMMENDATION

Toxicology Branch II has no objections to granting a Section 18 exemption for the use of CHLOROTHALONIL (BRAVO 720) in controlling Eastern Filbert Blight in hazelnuts in Oregon; however, the final decision to grant exemption is deferred to the SCAB/DRES for a carcinogenic risk assessment.



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

#### **MEMORANDUM**

Subject: Developmental Toxicity Study of Chlorothalonil in Rabbits

MRID 4220 016 07 CAS 215 B

To:

Lois Rossi, Chief

ReRegistration Branch

SRRD

From:

Reto Engler, Chief

SACB HED

At the time of our review of the Chlorothalonil standard we commented that the developmental toxicity study in rabbits needed a more in depth description. We came to realize that based on the "DER" on that study this was not possible, and requested the actual study. We also realized that California continued to disagree with us on the acceptability of that study.

Larry Chitlik and I have reviewed the study and have come to the conclusion that it is at best supplementary information and does not fulfill a data requirement, moreover, it's status can not be upgraded to a minimum study. The reasons are:

There were only two dose levels tested, 5, and 50 mg/kg/day.

At the high dose 4/9 rabbits aborted leaving a too small a number of litters to evaluate any other effects; the abortions may be a maternal effect, but since no other toxic signs were reported they may be due to late fetal deaths.

Resorptions may be increased at the low dose, and the fetal body weights at the low dose also seem lower than control. Therefore a NOEL is not clearly established at 5 mg/kg/day.

At the high dose one case of hydrocephaly and on case of cleft palate were reported, these findings should have been confirmed among the internal observations. Moreover these findings point to a developmentally toxic effect, which given the marginal study design can not be evaluated, and/or ruled out. We now also realize that the company has submitted a new study which so far has not been evaluated by the Agency. As soon as you are submitting the study to us we will conduct an acceptability screen, which will take about one week. If the study passes that screen we will send it to Dynamac for review, which might take from 1 to two months depending on the contractor's work load.



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CASWELL FILE WASHINGTON, DC 20460

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OFFICE OF
PESTICIDES AND
TOXIC SUBSTANCES

#### MEMORANDUM

SUBJECT: CHLOROTHALONIL (BRAVO 720) - Section 18 from the Florida Department of Agriculture and Consumer Services - Control of Benomyl-Resistant Anthracnose on Mangoes

Caswell No.: 215B
HED Project No.: 0-0772A
Record No.: 260165
Identifying No.: 90-FL-07

Review Section I, Toxicologist Alan C. Levy, Ph. D., Toxicologist Alan C. Kerry 3/13/90
Review Section I, Toxicology Branch II (HFAS)
Health Effects Division (H7509C)

TO: Susan Stanton PM 41
Registration Division (H7505C)

THRU: Yiannakis M. Ioannou, Ph. D., Section Head Review Section I, Toxicology Branch II (HFAS)
Health Effects Division (H7509C)

and

Marcia van Gemert, Ph. D., Branch Chief Mwan Smit 3/14/9 Toxicology Branch II (HFAS) Health Effects Division (H7509C)

Action Requested: Regarding the request for a Section 18 use of CHLOROTHALONIL (BRAVO 720) for control of benomylresistant anthracnose on mangoes, comment on whether the toxicology data base supports the proposed use.

#### BACKGROUND:

- 1. Toxicology Data Base The following are "data gaps" regarding required toxicology studies:
  - A. Teratology rabbit
  - B. Reproduction -rat

- 2. The following studies have been received from the Registrant and are awaiting review:
  - A. Teratology rabbit
  - B. Oncogenicity rat
  - C. Dose Rangefinding Reproduction rat

Review of the "Abstracts" only, as submitted by the Registrant, indicated the following:

- A. Teratology rabbit: doses of 0, 5, 10 and 20 mg/kg/day; maternal body weight loss and decreased food consumption during dosing only at 20 mg/kg/day; no fetotoxicity or teratogenicity reported
- B. Oncogenicity rat: dietary doses of 1.8, 3.8, 15 and 175 mg/kg/day; kidney and forestomach effects at 3.8 mg/kg/day and greater; renal tubular tumors at 15 mg/kg/day; preneoplastic effects and tumors in the forestomach at 3.8 mg/kg/day
- 3. Published Tolerances Tolerances for residues of CHLOROTHALONIL have been published in 40 CFR 180.275 for 35 agricultural commodities.
- 4. Carcinogenic Group B2, from the Health Effects Division (formerly, Toxicology Branch) Peer Review Committee. The  $Q_1^*$  was 1.1 x  $10^{-2}$  mg/kg/day (2 year feeding study in rats, memorandum B. Fisher 7/20/87).

#### RECOMMENDATION

Toxicology Branch II has no objections to granting a Section 18 exemption for the use of CHLOROTHALONIL (BRAVO 720) in controlling benomyl-resistant anthracnose on mangoes in Florida; however, the final decision to grant exemption is deferred to the SCAB/DRES for a carcinogenic risk assessment.